Instructions

for the

HEATH ZENITH

REMOTE CONTROL ACCESSORY

Model RTA-1-2

INTRODUCTION

This Accessory allows you to manually drive your Robot by wireless remote control. The buttons on the transmitter allow you to move the Robot forward, backward, turn left, or turn right. In addition, four-section dip switches are provided in both the transmitter and receiver so you can select your own security code. This allows you to operate more than one Robot in the same area, or reduces the chance of someone else controlling your Robot.

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HEATH COMPANY
BENTON HARBOR, MICHIGAN 49022

597-3731

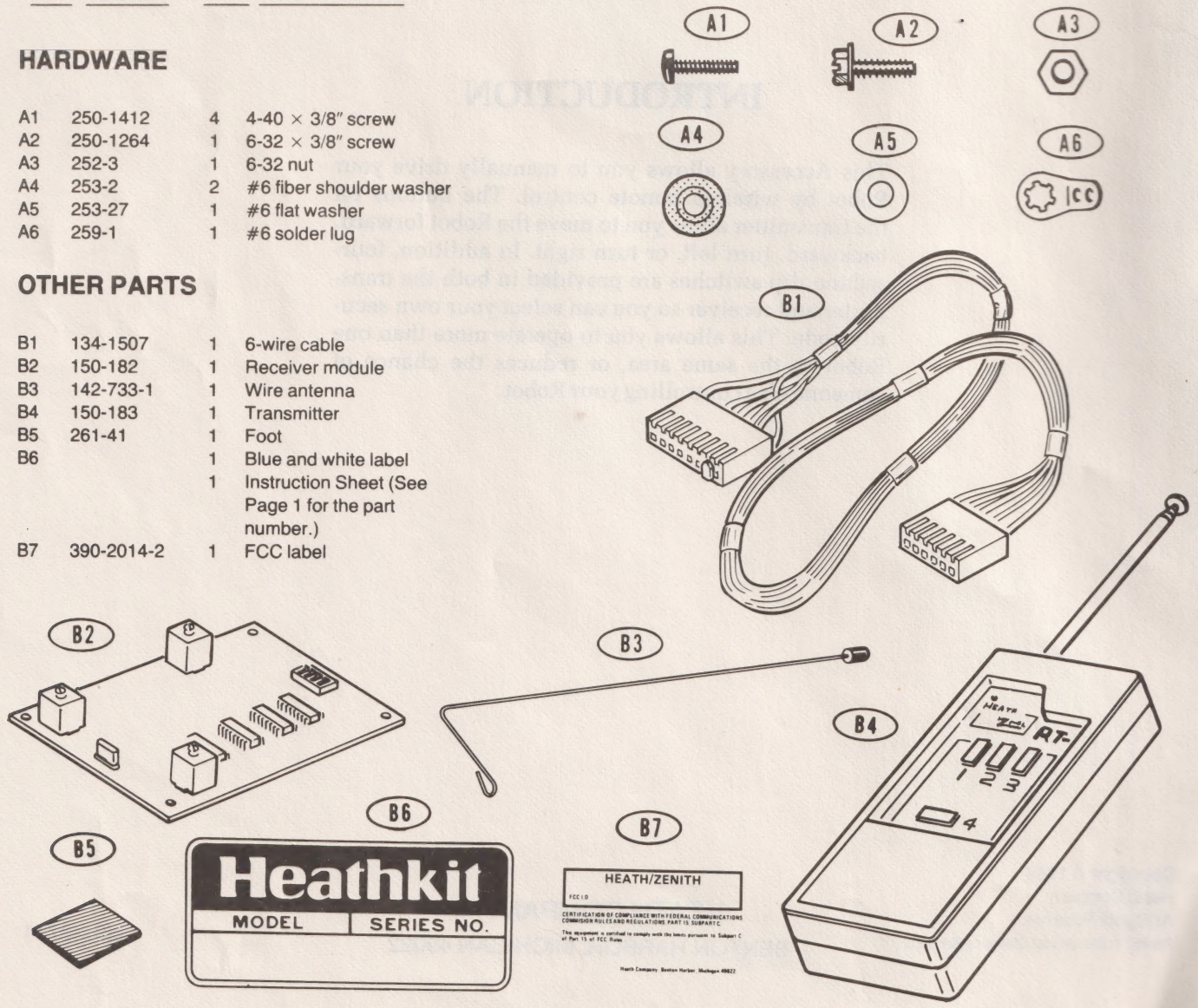
PARTS LIST

Unpack your Remote Control Accessory and check each part against the following list and the "Parts Pictorial." Return any part that is packed in an individual envelope, with the part number on it, back into its envelope until that part is called for in a step. Do not throw away any packing material until you account for all of the parts.

For Warranty information, refer to the Warranty that was provided with your Robot.

IMPORTANT: Do not tamper with the adjustments on the receiver module or inside the transmitter, except as you are directed in this Manual. To do so could deteriorate the effective transmitter range and will void the Warranty.

KEY No.	HEATH Part No.	QTY.	DESCRIPTION
HARDWARE			
A1	250-1412	4	4-40 × 3/8" screw
A2	250-1264	1	6-32 × 3/8" screw
A3	252-3	1	6-32 nut
A4	253-2	2	#6 fiber shoulder washer
A5	253-27	1	#6 flat washer
A6	259-1	1	#6 solder lug
OTHER PARTS			
B1	134-1507	1	6-wire cable
B2	150-182	1	Receiver module
B3	142-733-1	1	Wire antenna
B4	150-183	1	Transmitter
B5	261-41	1	Foot
B6		1	Blue and white label
		1	Instruction Sheet (See Page 1 for the part number.)
B7	390-2014-2	1	FCC label



ROBOT DISASSEMBLY

IMPORTANT: If you previously stored any data in your Robot's memory, **do not** turn off the Robot power in the next step. Instead, push the SLEEP switch to SLEEP. This will allow your Robot to retain all of the stored data, even though you will temporarily remove some of its interconnecting cables.

NOTE: If you are installing this Accessory while you assemble your Robot, skip the following steps and proceed directly to "Step-by-Step Assembly."

Push the Robot's POWER switch to OFF **OR** push the SLEEP switch to SLEEP and, if this has not already been done, disconnect any externally-connected cables, cords, etc.

Refer to Pictorial 1 (Illustration Booklet, Page 1) for the following steps.

( ) Position the Robot as shown in the Pictorial.

( ) Carefully pull the front and rear body panels from the Robot as shown. Set these panels aside temporarily.

( ) Locate and remove the four wing nuts that secure the Robot head to the chassis. Set these wing nuts aside temporarily.

( ) As you lift the Robot head from the chassis, carefully unplug the four cable connectors from the power/sense and CPU circuit boards.

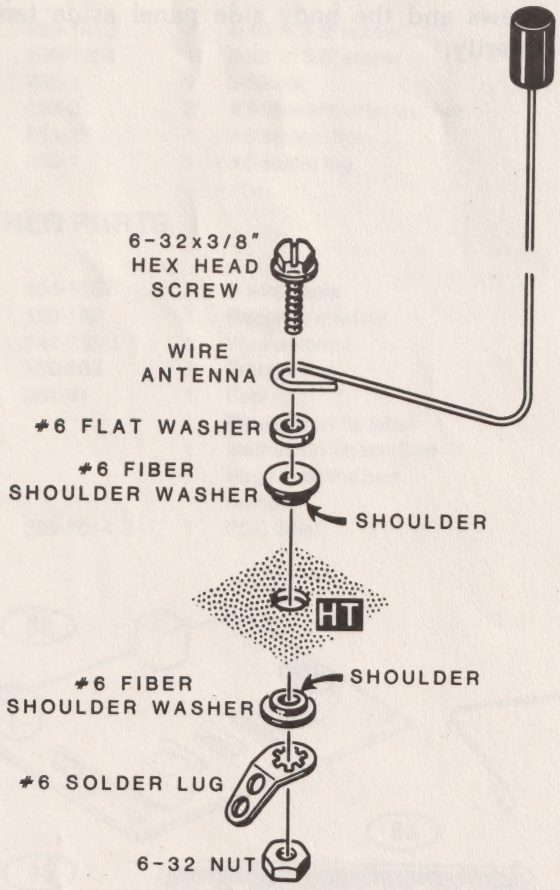
( ) Locate and remove the four #6 × 3/8" hex head sheet metal screws that secure the left body side panel to the chassis. Then set these screws and the body side panel aside temporarily.

STEP-BY-STEP ASSEMBLY

Refer to Pictorial 2 (Illustration Booklet, Page 1) for the following steps.

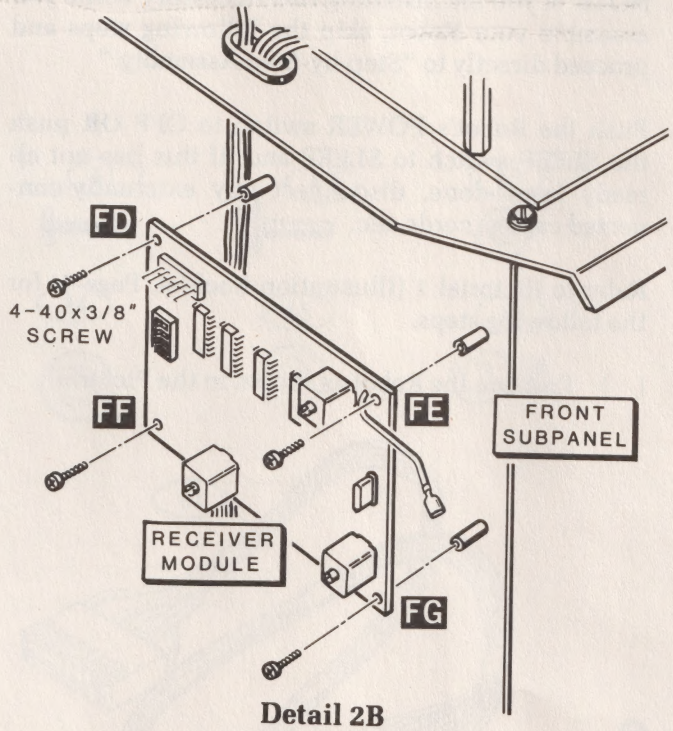
( ) Position the Robot as shown in the Pictorial.

( ) Refer to Detail 2A and use a 6-32 × 3/8" hex head screw, a #6 flat washer, two #6 fiber shoulder washers, a #6 solder lug, and a 6-32 nut to mount the wire antenna onto the head plate at HT. Be sure to position the antenna and the solder lug as shown before you tighten the hardware. Also be sure the shoulders on the fiber shoulder washers enter the head plate hole.



Detail 2A

( ) Refer to Detail 2B and use four 4-40 × 3/8" screws to mount the receiver module onto the front subpanel at FD, FE, FF, and FG. Be sure to position the circuit board as shown in the Pictorial so the single wire with connector extends from the upper right corner.



Detail 2B

( ) Push the connector on the free end of the of the wire coming from the receiver module onto solder lug HT.

( ) Push the larger 6-pin socket on one end of the 6-wire cable onto the plug on the receiver module. Be sure to position the socket so the slots face **toward** the circuit board as shown.

( ) Route the free end of the 6-wire cable coming from the receiver module up through grommet HA, around the inside of spacer HD, and through cable clip HK (under the wire cable coming from speaker SP2). Then push the socket on the end of this cable onto CPU plug P204. Be sure to position the socket so the slots face **away** from the circuit board as shown.

( ) Carefully peel the backing paper from the blue and white label. Then press the label onto the rear subpanel below any other blue and white labels you may have. Be sure to refer to the numbers on this label in any communications you may have with the Heath Company about your kit.

( ) Carefully peel the backing paper from the FCC label. Then press the label onto the front subpanel just below the receiver module.

Refer to Pictorial 3 (Illustration Booklet, Page 2) for the following steps.

( ) Use four #6 × 3/8" hex head sheet metal screws to mount the body side panel (removed earlier) onto the left side of the chassis.

( ) Carefully peel the backing paper from the foot. Then refer to the inset drawing on the Pictorial and press the foot onto the left body side panel as shown so the wire antenna cannot touch the top of the panel.

Position the Robot head above the chassis as shown in the Pictorial. Then carefully push the cable sockets onto the circuit board plugs as follows. Be sure there are no wires or cables pinched between the head mounting brackets and the chassis.

NOTE: If you are installing this Accessory while you assemble your Robot, return to your RT-1 Assembly Manual (Page 54).

( ) 25-pin socket onto CPU circuit board plug P205. Be sure the white-red wire is at plug pin 25.

( ) 2-wire cable onto power/sense circuit board plug P306.

( ) Shielded cable onto power/sense circuit board plug P305.

( ) 3-wire cable onto power/sense circuit board plug P303. Be sure the violet wire is at plug pin 8.

( ) Position the Robot head down onto the chassis so the mounting studs enter the chassis holes as shown. Then use the four wing nuts removed earlier to secure the head into place.

NOTE: The receiver and transmitter were factory set to the same security code, which does not normally need to be changed. If you experience an interference problem from another nearby Robot, however, you may wish to change this security code before you reinstall the body panels in the next step. Refer to "Changing Your Security Code" for further information.

( ) Check to make sure Security Codes match.

( ) Reinstall the front and rear body panels.

This completes the installation of your Remote Control Accessory. Refer to your Owner's Guide for operating instructions.

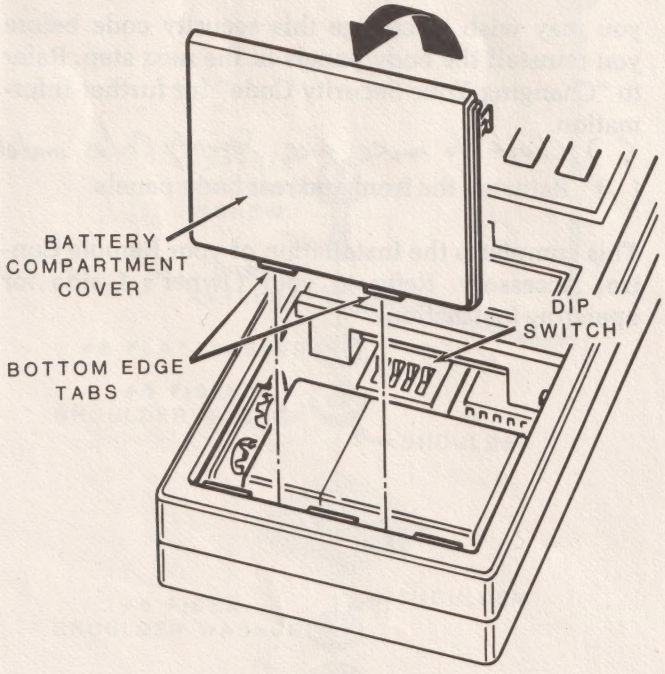
CHANGING YOUR SECURITY CODE

The receiver module and the transmitter each contain a 4-section DIP switch that allows you to select any one of sixteen different security codes. The factory-set security code will produce satisfactory results in most cases. If you experience interference from another nearby Robot, however, you may wish to change the code to eliminate the interference.

The following steps show you how to change the Remote Control security code.

( ) Carefully pull the front body panel off of the Robot and set it aside temporarily.

( ) Pry the top of the battery component door away from the front cover of the transmitter as shown in Pictorial 4. Then remove the door.



PICTORIAL 4

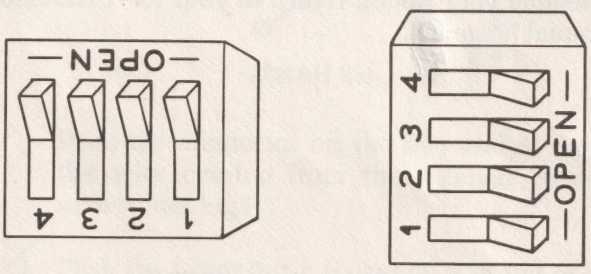
( ) Refer to Pictorial 5 and locate the DIP switches mounted on the receiver module and on the transmitter circuit board. Note that one side of each switch is labeled "open" and the other side is numbered 1 through 4.

~~The DIP switches are factory set so all four switches are set to closed (the side of each switch nearest the numbers is in the down position).~~ These switches can be set any way you desire, but the switches on the receiver module and inside the transmitter **must** be set exactly the same way. For example: If you set switch 1 open on the receiver module, you must also set switch 1 in the transmitter to open.

( ) Set the four switches in each unit to the code you desire.

( ) Reinstall the front body cover on the Robot.

( ) Start the tabs on the bottom edge of the battery compartment door into the corresponding cut-outs in the bottom edge of the front cover. Then snap the top edge of the door into place.



PICTORIAL 5

REPLACING THE BATTERY

Since the transmitter only draws current from the battery while you hold one of the buttons down, the battery should last a long time. If you do find it necessary to replace the battery, be sure to use a long-life, alkaline battery. Some representative manufacturers and their type numbers are:

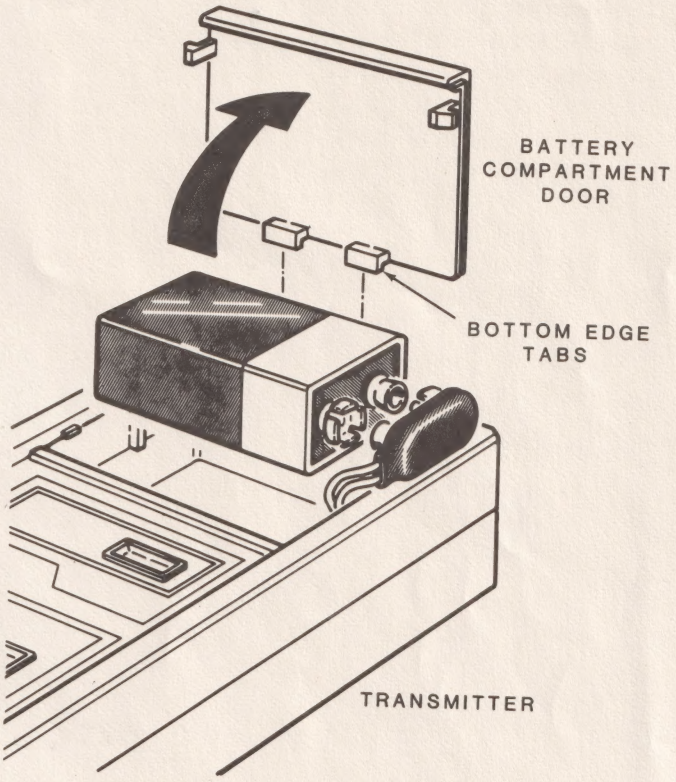
Eveready #522
Mallory #M1604A
Duracell #MN1604

To replace the battery, perform the following steps:

( ) Pry the top of the battery compartment door away from the front cover as shown in Pictorial 6. Then remove the door.

( ) Replace the battery.

( ) Start the tabs on the bottom edge of the battery compartment door into the corresponding cut-outs in the bottom edge of the front cover. Then snap the top edge of the door into place.



PICTORIAL 6

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TLX 72-9421

IMPORTANT NOTICE

Please remove the parts attached to this Notice and then make the following changes in your Manual before you start to assemble your Remote Control Accessory.

Page 4 — Tape the new Page 4, on the back of this Notice, over Page 4 in your Manual.

Page 2 — Left column, under "Hardware," add:

A7 254-9 4 #4 lockwasher

— Cut out the new Pictorial A7, supplied with this Notice, and tape it near A6 on the right side of the Page.

Page 5 — Left column, bottom note. Change the page reference in the last line from 71 to 54.

— Cut out the new right column, supplied with this Notice, and tape it over the right column on this Page.

Page 6 — Cut out the new left column, supplied with this Notice, and tape it over the left column on this Page.

— Right column. Cross out the first sentence in the second paragraph.

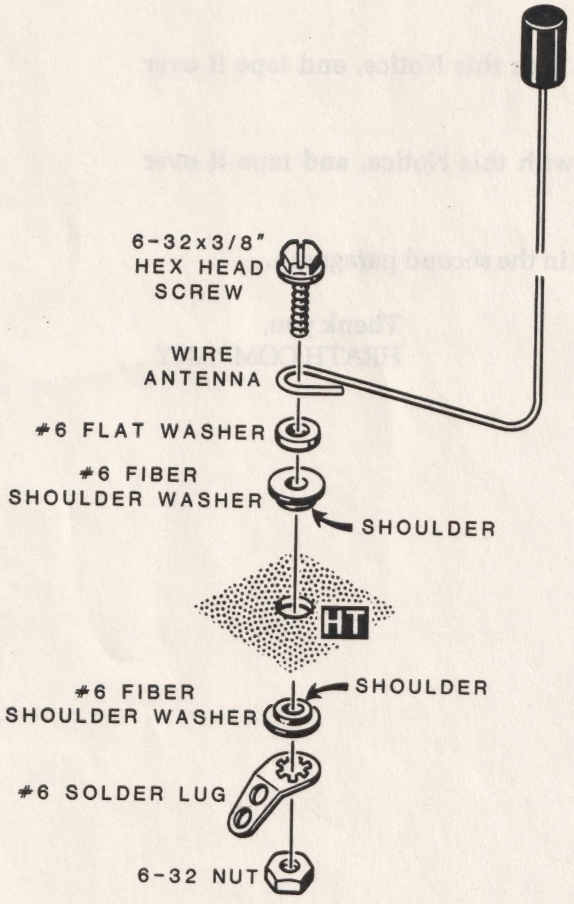
Thank you,
HEATH COMPANY

STEP-BY-STEP ASSEMBLY

Refer to Pictorial 2 (Illustration Booklet, Page 1) for the following steps.

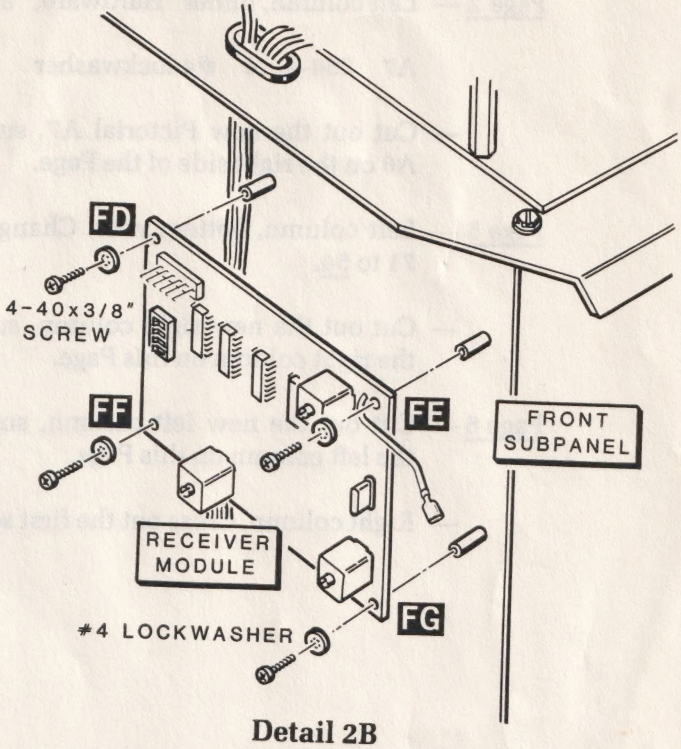
( ) Position the Robot as shown in the Pictorial.

( ) Refer to Detail 2A and use a 6-32 × 3/8" hex head screw, a #6 flat washer, two #6 fiber shoulder washers, a #6 solder lug, and a 6-32 nut to mount the wire antenna onto the head plate at HT. Be sure to position the antenna and the solder lug as shown before you tighten the hardware. Also be sure the shoulders on the fiber shoulder washers enter the head plate hole.



Detail 2A

( ) Refer to Detail 2B and use four 4-40 × 3/8" screws and four #4 lockwashers to mount the receiver module onto the front subpanel at FD, FE, FF, and FG. Be sure to position the circuit board as shown in the Pictorial so the single wire with connector extends from the upper right corner.



Detail 2B

( ) Push the connector on the free end of the of the wire coming from the receiver module onto solder lug HT.

( ) Push the larger 6-pin socket on one end of the 6-wire cable onto the plug on the receiver module. Be sure to position the socket so the slots face **toward** the circuit board as shown.

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( ) 25-pin socket onto CPU circuit board plug P205. Be sure the white-red wire is at plug pin 25.

( ) 2-wire cable onto power/sense circuit board plug P306.

( ) Shielded cable onto power/sense circuit board plug P305.

( ) 3-wire cable onto power/sense circuit board plug P303. Be sure the violet wire is at plug pin 8.

( ) Position the Robot head down onto the chassis so the mounting studs enter the chassis holes as shown. Then use the four wing nuts removed earlier to secure the head into place.

NOTE: If you experience an interference problem from another nearby Robot, you may wish to change the security code before you reinstall the body panels in the next step. Refer to "Changing Your Security Code" for further information.

( ) Before you reinstall the front and rear body panels, check to make sure the security codes match.

This completes the installation of your Remote Control Accessory. Refer to your Owner's Guide for operating instructions.

PAGE 5

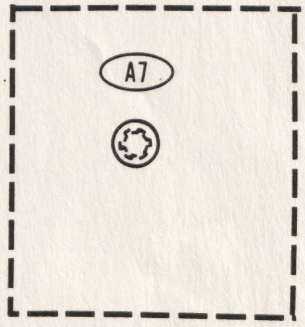
The receiver module and the transmitter each contain a 4-section DIP switch that allows you to select any one of sixteen different security codes. If you experience interference from another nearby Robot, you may wish to change the code to eliminate the interference.

The following steps show you how to change the Remote Control security code.

( ) Carefully pull the front body panel off of the Robot and set it aside temporarily.

( ) Pry the top of the battery component door away from the front cover of the transmitter as shown in Pictorial 4. Then remove the door.

PAGE 6



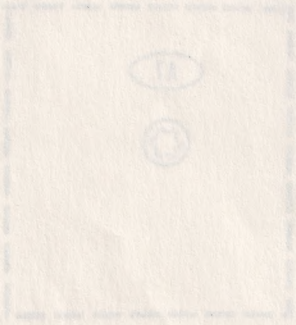
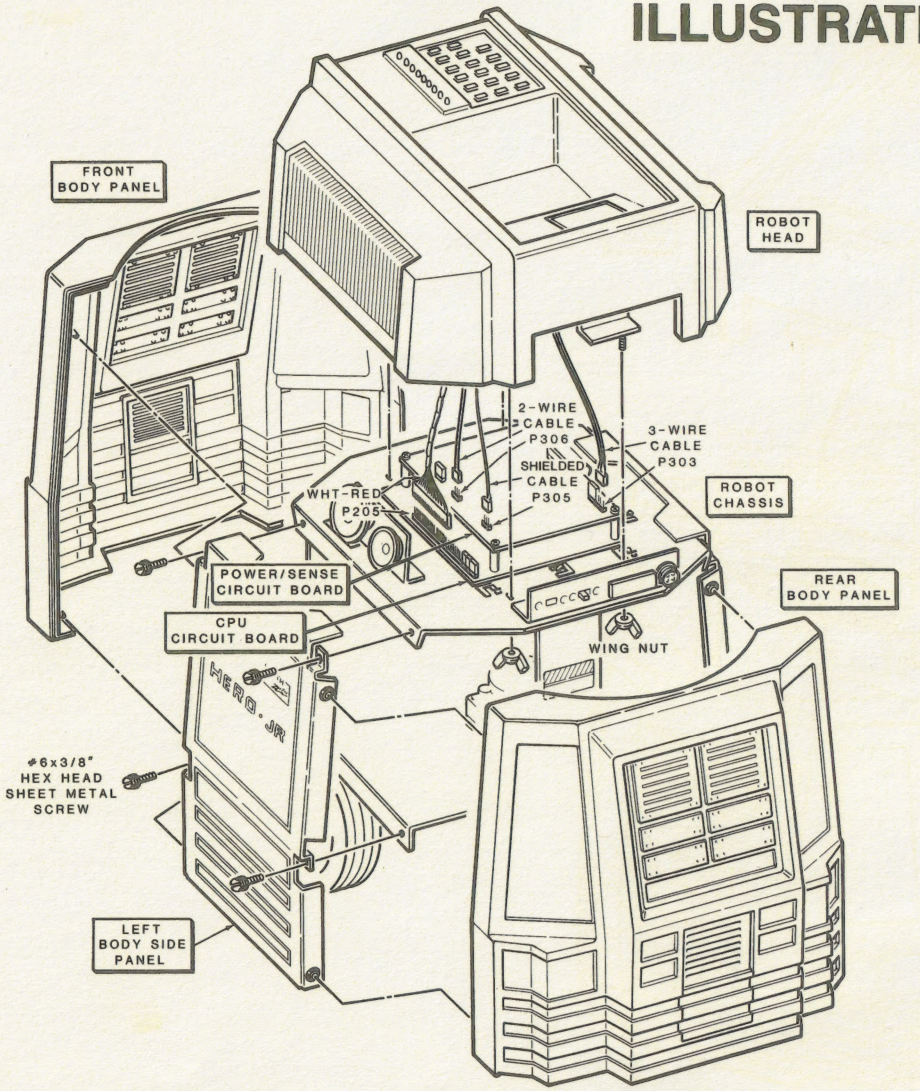
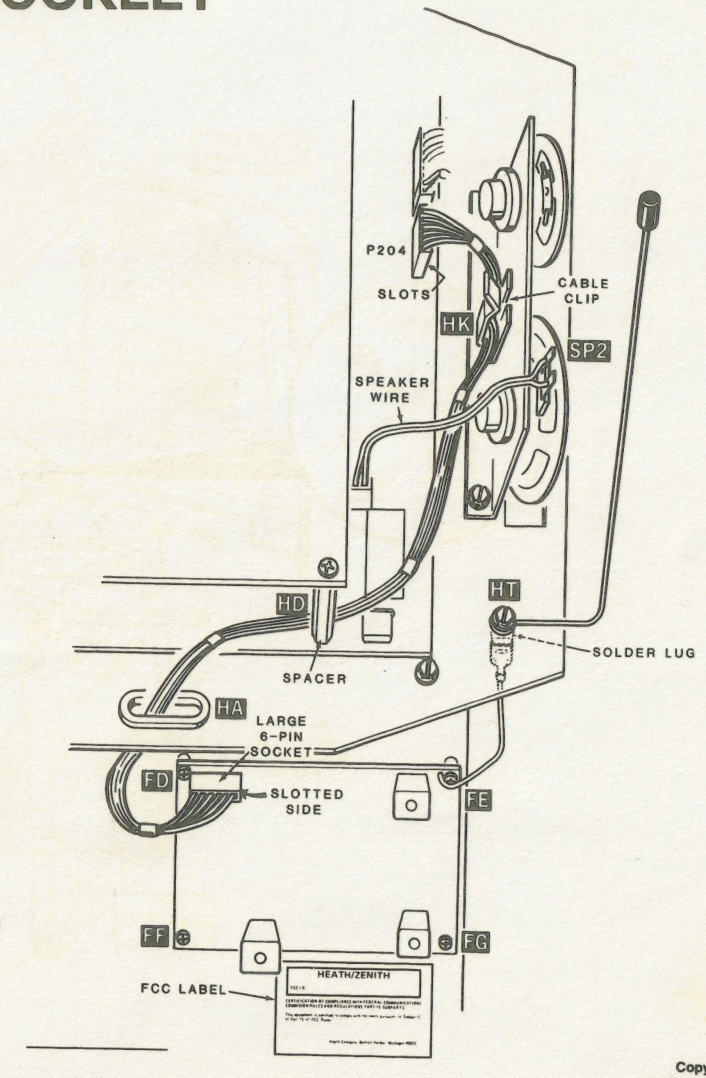


ILLUSTRATION BOOKLET

Part of 597-3731



PICTORIAL 1



PICTORIAL 2

Model RTA-1-2

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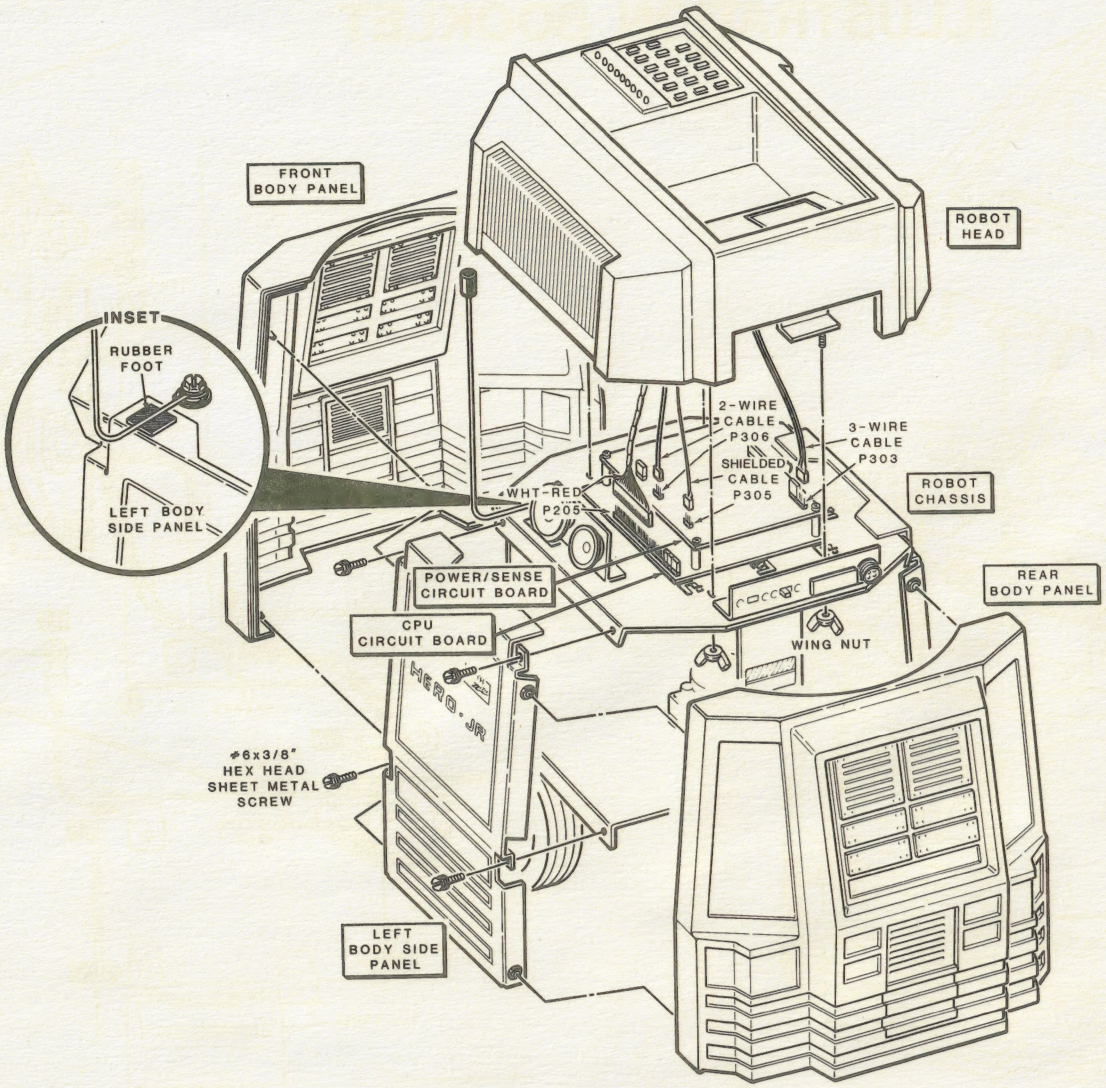
FRONT BODY PANEL
ROBOT HEAD
INSET
RUBBER FOOT
LEFT BODY SIDE PANEL
2-WIRE CABLE P306
3-WIRE CABLE P303
SHIELDED CABLE P305
WHT-RED P205
ROBOT CHASSIS
POWER/SENSE CIRCUIT BOARD
REAR BODY PANEL
CPU CIRCUIT BOARD
WING NUT
HERO JR
#6x3/8" HEX HEAD SHEET METAL SCREW
LEFT BODY SIDE PANEL

PICTORIAL 3